Title (en)

BOIL-OFF GAS RELIQUEFACTION DEVICE

Title (de)

VORRICHTUNG ZUR WIEDERVERFLÜSSIGUNG EINES BOIL-OFF-GASES

Title (fr)

DISPOSITIF DE RELIQUÉFACTION DE GAZ D'ÉVAPORATION

Publication

**EP 2623414 A4 20180718 (EN)**

Application

**EP 11828834 A 20110916**

Priority

- JP 2010222495 A 20100930
- JP 2011071216 W 20110916

Abstract (en)

[origin: EP2623414A1] Provided is a boil-off gas reliquefaction device that devises a disposition of equipment to be installable even in existing LNG carriers and that has a refrigeration cycle unit that reduces thermal load, is compact, and is highly efficient. The boil-off gas reliquefaction device (1) has: a liquefaction processing unit (5) having a BOG supply pipework (35), a fuel compressor (33), and a BOG transport pipework (39); and a refrigeration cycle unit (3) that further lowers the temperature of a coolant from a coolant compressor (6) by means of an expander (13) and that has a condenser (17) that cools BOG passing through the BOG transport pipework (39). The liquefaction processing unit (5) is provided with a BOG precooler (57) that performs heat exchange between BOG passing through the BOG transport pipework (39) on the upstream side of the condenser (17) and BOG passing through the BOG supply pipework (35). The refrigeration cycle unit (3) is provided with: a booster compressor (19) that is driven on the downstream side of the condenser (17) by the expander (13); and a second aftercooler (29) that cools the coolant from the booster compressor (19).

IPC 8 full level

**B63B 25/16** (2006.01); **C10L 3/06** (2006.01); **F17C 13/00** (2006.01); **F25J 1/00** (2006.01); **F25J 1/02** (2006.01); **F25J 3/06** (2006.01)

CPC (source: EP KR)

**B63B 25/16** (2013.01 - KR); **C10L 3/06** (2013.01 - KR); **F17C 13/00** (2013.01 - KR); **F25J 1/00** (2013.01 - KR); **F25J 1/0025** (2013.01 - EP); **F25J 1/0045** (2013.01 - EP); **F25J 1/005** (2013.01 - EP); **F25J 1/0065** (2013.01 - EP); **F25J 1/0067** (2013.01 - EP); **F25J 1/0072** (2013.01 - EP); **F25J 1/0204** (2013.01 - EP); **F25J 1/0208** (2013.01 - EP); **F25J 1/023** (2013.01 - EP); **F25J 1/0247** (2013.01 - EP); **F25J 1/0265** (2013.01 - EP); **F25J 1/0267** (2013.01 - EP); **F25J 1/0277** (2013.01 - EP); **F25J 1/0282** (2013.01 - EP); **F25J 1/0284** (2013.01 - EP); **F25J 1/0288** (2013.01 - EP); **F25J 1/0296** (2013.01 - EP); **F25J 1/0298** (2013.01 - EP); F17C 2221/033 (2013.01 - EP); F17C 2223/0161 (2013.01 - EP); F17C 2223/033 (2013.01 - EP); F17C 2265/034 (2013.01 - EP); F17C 2270/0105 (2013.01 - EP); F25J 2210/04 (2013.01 - EP); F25J 2220/62 (2013.01 - EP); F25J 2230/08 (2013.01 - EP); F25J 2230/24 (2013.01 - EP); F25J 2230/30 (2013.01 - EP); F25J 2245/02 (2013.01 - EP); F25J 2290/34 (2013.01 - EP)

Citation (search report)

- [X] WO 2009126604 A1 20091015 - FLUOR TECH CORP [US], et al
- [XY] KR 20080031611 A 20080410 - DAEWOO SHIPBUILDING & MARINE [KR], et al
- [IDY] JP 2010025152 A 20100204 - MITSUBISHI HEAVY IND LTD
- See references of WO 2012043274A1

Cited by

CN104295889A; WO2017031986A1; US10364013B2; US11300355B2; WO2016200174A1; WO2016200170A1; US11959700B2; US10399655B2; US10654553B2; US10661874B2; US10661873B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 2623414 A1 20130807**; **EP 2623414 A4 20180718**; CN 103097237 A 20130508; CN 103097237 B 20160525; JP 2012076559 A 20120419; JP 5737894 B2 20150617; KR 20130031843 A 20130329; WO 2012043274 A1 20120405

DOCDB simple family (application)

**EP 11828834 A 20110916**; CN 201180032758 A 20110916; JP 2010222495 A 20100930; JP 2011071216 W 20110916; KR 20127033239 A 20110916